

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Steven Charles Glassman et al.

Serial No.: 10/072,840

Filed: February 6, 2002

For: SYSTEM AND METHOD FOR
PROVIDING MULTI-CLASS
PROCESSING OF LOGIN
REQUESTS

§ Group Art Unit: 2132
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§ Examiner: Herring, Virgil A.
§
§ Atty. Docket: 200302014-1
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Joan Deasy

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal mailed on July 12, 2007, and received by the Patent Office on July 16, 2007.

1. **REAL PARTY IN INTEREST**

The real party in interest is Hewlett-Packard Development Company, L.P., the Assignee of the above-referenced application by virtue of the Assignment to Hewlett-Packard Development Company, L.P. recorded at reel 016865, frame 0035, and dated August 3, 2005. Accordingly, Hewlett-Packard Development Company, L.P. will be directly affected by the Board's decision in the pending appeal.

2. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellants' legal representative in this Appeal.

3. STATUS OF CLAIMS

Claims 56 and 58-64 are currently pending. Claims 56, 58, 59 and 61-64 are currently under final rejection. Claim 60 is currently objected to. Thus, claims 56 and 58-64 are the subject of this Appeal. Claims 1-55 and 57 are canceled.

4. STATUS OF AMENDMENTS

There are no outstanding amendments to be considered by the Board.

5. SUMMARY OF CLAIMED SUBJECT MATTER

With regard to the aspects of the invention set forth in independent claim 56, discussions of the recited features of claim 56 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 56 is directed to a method for providing multi-class processing of login requests. The method comprises associating a login cookie class (310) with a login cookie (300). *See, e.g., Application, page 5, line 4 – page 6, line 2; page 7, lines 5-16; page 19, lines 4-11; page 22, lines 17-23; page 23, lines 5-7; page 23, lines 13-20; Figs. 2-4, 9 and 10A-10D.* The method also comprises providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie. *See, e.g., Application, page 7, line 5 – page 9, line 16; page 10, line 28 – page 12, line 7; page 14, lines 13-15; page 16, line 17 – page 17, line 8; page 21, lines 5-28; Figs. 10A-10D.* Further, the method comprises requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt. *See, e.g., Application, page 7, line 5 – page 9, line 6; page 10, line 28 – page 12, line 7; page 14, lines 13-15; Figs. 10A-10D.*

With regard to the aspect of the invention set forth in independent claim 62 discussions of the recited features of claim 62 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 62 is directed a computer program product for use in conjunction with a computer system (100). The computer program product comprises a computer readable storage medium (112) and a computer program mechanism embedded therein. The computer program mechanism comprises instructions for associating a login cookie class (310) with a login cookie (300). *See, e.g.*, Application, page 5, line 4 – page 6, line 2; page 7, lines 5-16; page 19, lines 4-11; page 22, lines 17-23; page 23, lines 5-7; page 23, lines 13-20; Figs. 2-4, 9 and 10A-10D. The computer program further comprises instructions for providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie. *See, e.g.*, Application, page 7, line 5 – page 9, line 16; page 10, line 28 – page 12, line 7; page 14, lines 13-15; page 16, line 17 – page 17, line 8; page 21, lines 5-28; Figs. 10A-10D. Additionally, the computer program comprises instructions requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt. *See, e.g.*, Application, page 7, line 5 – page 9, line 6; page 10, line 28 – page 12, line 7; page 14, lines 13-15; Figs. 10A-10D.

With regard to the aspect of the invention set forth in independent claim 63, discussions of the recited features of claim 63 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 63 is directed to a method for providing multi-class processing of login requests to resist unauthorized access attempts. The method comprises providing a client (104) with a first-class login token (300) when the client successfully logs into an account, wherein the first-class login token entitles the client to one or more unsuccessful login attempts without requiring a delay between the unsuccessful login attempts. *See, e.g.*, page 7, lines 5-16; page 8, lines 20-28; page 17, line 10 – page 24, line 19; Figs. 3A, 9, 10A-10D. The method also comprises requiring a delay between attempts to log into the account if a

second-class login token or an expired first-class login token is utilized by the client.

See, e.g., Application, page 7, line 5 – page 9, line 6; page 10, line 28 – page 12, line 7; page 14, lines 13-15; page 17, line 10 – page 24, line 19; Figs. 10A-10D. Further, the method comprises rejecting login attempts by the client when the client does not utilize any class of login token. *See, e.g.*, Application, page 7, lines 24-27; page 17, line 10 – page 24, line 19; Figs. 10A-10-D.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Ground of Rejection for Review on Appeal:

The Appellants respectfully urge the Board to review and reverse the Examiner's only ground of rejection in which the Examiner rejected claims 56, 58, 59 and 61-64 under 35 U.S.C. § 102(a) as being anticipated by Bhatti et al. (U.S. Patent No. 6,304,906 B1) (hereinafter referred to as "the Bhatti reference").

7. ARGUMENT

As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under 35 U.S.C. § 102. Accordingly, the Appellants respectfully request full and favorable consideration by the Board, as the Appellants strongly believe that claims 56, 58, 59 and 61-64 are currently in condition for allowance.

A. Ground of Rejection:

The Examiner rejected claims 56, 58, 59 and 61-64 U.S.C. § 102(a) as being unpatentable over the Bhatti reference. The Appellants respectfully traverse this rejection.

1. **Judicial precedent has clearly established a legal standard for a *prima facie* anticipation rejection.**

Anticipation under 35 U.S.C. § 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). Thus, for a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, the Appellants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Further, regarding a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (Emphasis Added). The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.*

2. **The Bhatti Reference Fails to Anticipate the Pending Claims.**

Specifically, with regard to the rejection of claims 56, 62 and 63 in view of the Bhatti reference, the Examiner stated:

Bhatti et al disclose a method for providing multi-class processing of login requests comprising:

associating a login cookie class with a login cookie; and (column 8, lines 9-15)

providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie (column 6, lines 13-39)

requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt. (column 6, lines 13-39; column 8, line 46 – column 9, line 34; see Response to Arguments for detailed explanation).

Furthermore, with regards to claim 63, Bhatti et al disclose rejecting login attempts by the client when the client does not utilize any class of login token. (column 3, lines 24-27 & 35-41).

Final Office Action, page 4.

Turning to the claims, claims 56 and 62 each recite, *inter alia*, “requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt.” (Emphasis added). The Appellants assert that, among other things, the Bhatti reference does not appear to teach these features of claims 56 and 62. Indeed, it appears that the Bhatti reference merely teaches that “class-based services provide tiered performances to match tiered pricing” and that “[e]ach tier or class may have targets or expectations of performance.” Bhatti et al., col. 6, lines 33-35. The Examiner asserted that “[t]his clearly indicates that lower tiers would experience lower performance.” Final Office Action, page 2. However, the Appellants do not see any direct correlation between experiencing “lower performance” at a lower tier and requiring longer delays for second-class login cookies. Accordingly, the Appellants assert that the Examiner’s citation to the Bhatti reference does not inherently teach that a longer delay is required for a second-class login cookie than for a first-class login cookie.

Embodiments of the present invention are directed to reducing the effectiveness of certain methods of attacking an account (e.g., dictionary attacks). Accordingly, present embodiments are directed to “requiring” additional time between login attempts for clients with second-class login tokens. *See Application, paragraph [0006].* This facilitates resistance or prevention of certain account attacks, such as dictionary attacks. The Appellants can find no teaching of this in the Bhatti reference. Further, the Appellants can find no support for what appears to be an inherency argument by the Examiner. Indeed, the portion of the Bhatti reference cited by the Examiner is reproduced below to emphasize this deficiency.

Each of the access request classification systems **52-52n** is used for one of the content sites **108-108n**. For example, the access request classification system **52** is for the content site **108** and the access request classification system **52n** is for the content site **108n**. The access request classification systems **52-52n** are connected to their corresponding content sites **108-108n** via the server application **53**. Each access request classification system is used to classify the access requests for its corresponding content site such that preferential treatments may be provided for some of the access requests accessing that content site. This allows the server **50** to provide class-based services to its users. The class-based services server **50** allows multiple classes of users to share the same content site (i.e., the same URL address) and yet receive different treatments or performance. Class-based services is a mechanism for differentiating services given to individual classes. Thus, service performance can be priced based on performance or service agreements. A higher class with greater guarantee can be priced higher than a lower class that may offer less guarantee and more “best effort” services. Class-based services provide tiered performances to match tiered pricing. Each tier or class may have targets or expectations for performance. Each of the access request classification systems **52-52n** performs substantially the same function. The structure of each of the access request classification systems **52-52n** is shown in FIG. 4, which will be described in more detail below.

Col. 6, lines 13-39 of Bhatti et al.

The Examiner also cited to column 8, line 46 to column 9, line 34 of the Bhatti reference as teaching “requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt,” as recited in claims 56 and 62. Specifically, the Examiner asserted that in this portion of the Bhatti reference “it is mentioned that in priority scheduling, the first-class queue is processed before the second-class queue.” Final Office Action, page 2. However, the Appellants stress that the priority scheduling scheme of the Bhatti reference is not equivalent to the recited login attempt. Indeed, a processing request and/or a queue is not equivalent to a login cookie. Accordingly, the Bhatti reference fails to teach the recited feature of claims 56 and 62.

Regarding dependent claim 59, the Examiner stated that in the Bhatti reference “login attempts to a computer system inherently occur serially, rather than in parallel.” Final Office Action, page 5 (emphasis added). The Appellants respectfully traverse this assertion. First, it should be noted that the present claim is not limited to a single computer system. A login account may be accessed via multiple computer systems. For example, multiple clients may attempt to access a single account from multiple locations. Further, embodiments of the present invention are directed to preventing attacks against an account in parallel. As set forth above, embodiments of the present invention are directed to preventing unauthorized access to accounts. Some embodiments of the present invention “serialize login attempts made without a first-class login cookie 300 to control the rate at which such login attempts are processed” to prevent the “launch [of] many attacks against an account in parallel.” Application, paragraph [0030] (emphasis added).

The Examiner agreed with the Appellants’ assertion that the present claim is not limited to a single computer system. See Final Office Action, page 3. Further, the Examiner apparently agreed with the Appellants’ assertion that logins are processed in a serial manner in accordance with some embodiments of the present invention. *Id.* However, the Examiner asserted that “applicants’ own claim 56 precludes the need to

serialize the login attempts, because the login cookies (which are already defined as first- or second-class) are stored on the computer system from which the login is attempted.” Final Office Action, page 3. To clarify this assertion, the Examiner further stated that “a ‘parallel’ login would not occur, because each location would have its own cookie of first- or second-class.” *Id.* The Appellants assert that these statements by the Examiner are irrelevant and confusing. First of all, the Examiner’s statement appears to be incorrect. For example, a login cookie stored on a computer system may not be considered to have a class designation until it is assigned such a designation upon attempting to access a computer system. Further, the Examiner’s statements that claim 56 “precludes the need to serialize the login attempts” and that “a ‘parallel’ login would not occur” are irrelevant and apparently based on a flawed understanding. The Appellants emphasize that claim 59 recites that the method comprises “serializing login attempts made without a login cookie designated as first-class,” and the Examiner still has not provided support for the assertion that the Bhatti reference discloses this feature.

The Appellants assert that the Examiner has not provided sufficient support for the inherency arguments made in the Examiner’s rejection of the subject matter set forth in claims 56 and 59. While the Appellants believe this is moot in view of the arguments set forth above, the Appellants remind that Board that the Examiner should have provided a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

Turning to claim 63, the Appellants assert that the Examiner did not address the recitations of claim 63 in any detail. Rather, it appears that the Examiner merely rejected claim 63 for the same reasons the Examiner set forth with respect to claims 56 and 62. The Appellants stress that “[a] plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group.” M.P.E.P. § 707.07(d). Further, the Appellants assert that the Examiner improperly expressed the rejection by inappropriately grouping the claims together and has

completely failed to address all of the features of independent claim 63. For example, claim 63 recites, *inter alia*, “providing a client with a first-class login token when the client successfully logs into an account, wherein the first-class login token entitles the client to one or more unsuccessful login attempts without requiring a delay between the unsuccessful login attempts.” This feature was not addressed by the Examiner. Additionally, in as much as the Examiner’s rejection directly applies to claim 63, the Appellants assert that claim 63 is allowable for the same reasons set forth above with respect to claims 56 and 62.

Furthermore, the Bhatti reference fails to disclose “rejecting login attempts by the client when the client does not utilize any class of login token,” as recited in claim 63. The Examiner apparently asserted that this feature is disclosed at column 3, lines 24-27 and 35-41 of the Bhatti reference. However, these portions of the Bhatti reference fail to disclose rejecting login attempts, much less rejecting login attempts when a login token is not utilized. Rather, the cited portions of Bhatti reference merely appear to relate to refusing to classify access requests for reasons such as preventing overload or providing better performance. *See* Bhatti et al., col. 3, lines 24-29. Additionally, the Appellants stress that a processing request is not equivalent to a login token.

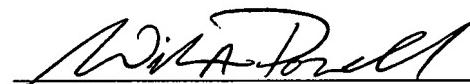
For the reasons set forth above, the Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 102 of independent claims 56, 62 and 63 and the claims depending therefrom.

Conclusion

Appellants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner or Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: September 13, 2007


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8. **APPENDIX OF CLAIMS ON APPEAL**

Listing of Claims:

56. A method for providing multi-class processing of login requests comprising:
associating a login cookie class with a login cookie;
providing a level of service to login attempts associated with the login cookie
based on the login cookie class of the login cookie; and
requiring a longer time delay for a second-class login cookie than for a first-class
login cookie between an invalid login attempt and allowing a subsequent login attempt.
58. The method of claim 56 wherein providing a level of service to login attempts
associated with the login cookie based on the login cookie class of the login cookie
further comprises:
invalidating the subsequent login attempt for the second-class login before a user
name and password are processed responsive to the subsequent login attempt being
performed before the expiration of the longer time delay.
59. The method of claim 56 wherein providing a level of service to login attempts
associated with the login cookie based on the login cookie class of the login
cookie further comprises:
serializing login attempts made without a login cookie designated as first-class.

60. The method of claim 56 wherein providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie further comprises:

responsive to no invalid consecutive login attempts since a previous valid login, associating a different class of login cookie with a more preferential level of service with the login cookie.

61. The method of claim 56 wherein providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie further comprises:

processing a login attempt associated with a class with a less preferential level of service at a slower defined rate than another class with a more preferential level of service based on a login state which defines a rate at which a server can process login attempts.

62. A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

instructions for associating a login cookie class with a login cookie;
instructions for providing a level of service to login attempts associated with the login cookie based on the login cookie class of the login cookie; and

instructions requiring a longer time delay for a second-class login cookie than for a first-class login cookie between an invalid login attempt and allowing a subsequent login attempt.

63. A method for providing multi-class processing of login requests to resist unauthorized access attempts comprising:

- providing a client with a first-class login token when the client successfully logs into an account, wherein the first-class login token entitles the client to one or more unsuccessful login attempts without requiring a delay between the unsuccessful login attempts;

- requiring a delay between attempts to log into the account if a second-class login token or an expired first-class login token is utilized by the client; and

- rejecting login attempts by the client when the client does not utilize any class of login token.

9. **EVIDENCE APPENDIX**

None.

10. **RELATED PROCEEDINGS APPENDIX**

None.